

REPAIRS OF CUMBERLAND ROAD EAST OF THE OHIO.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING

*A report in relation to the Cumberland road east of the Ohio.*

DECEMBER 10, 1834.

Read, and laid upon the table.

WAR DEPARTMENT,  
December 8, 1834.

SIR: I have the honor to transmit, herewith, a report from the Engineer Department, in relation to the repairs of the Cumberland road east of the Ohio, which had not been received when the annual report from this department was sent to the President.

Very respectfully, your most obedient servant,  
LEW. CASS.

HON. JOHN BELL,  
*Speaker of the House of Representatives.*

ENGINEER DEPARTMENT,  
December 6, 1834.

SIR: I have the honor to hand you, herewith, in duplicate, the report of the superintendent for repairing the Cumberland road east of the Ohio, showing its condition on the 30th September last. Continual occupations have caused the delay, on the part of that officer, to furnish this report in time to be appended to mine of the 1st ultimo, relative to the affairs of this department for the current year.

I have the honor to be, sir,  
Your most obedient servant,  
C. GRATIOT.

To the Hon. LEWIS CASS,  
*Secretary of War.*

*Memoir on the progress of the repairs of the Cumberland road east of the Ohio, to the 30th September, 1834.*

The memoir prepared last year presents the information called for by the regulations of the department, in relation to this road, to the 30th September, 1833.

The "nature and progress of the operations" of that year were continued under the system, as therein detailed, to December, when, the available means being absorbed, a cessation was put to the work, and all the stock and tools collected at points on the road favorable for renewing the work in the spring.

The winter and spring proved rainy and wet, and operated unfavorably on all the road that had been newly graded, and such parts as had but three inches of metal, and not consolidated. The system of placing barriers on the road, to change the travel from the centre, and thus cause it to pack over the whole surface, having been prohibited early in the season of 1833, tended to the most unfavorable results on that part of the road where the very best material had been used, between Laurel hill and Brownsville, and in the State of Virginia. The stratum of stone put on these two divisions was more or less mixed with the bed, and injured.

The whole system of operations being in an unfinished state, it was hoped means would have been available early in the spring, to recommence with the opening of the season, and apply labor in time to preserve the graded surfaces, and parts covered with one stratum of metal.

Being disappointed in this particular, it became indispensable to dispose of all the stock, and every article of property that would command cash or materials, and apply the limited means thus raised to the raking and drainage of the road. The parts most needing attention were in this way prevented from going to ruin, with the injury of having the metal more or less mixed with foreign matter.

It was not until July, of 1834, that funds were made available for continuing the repairs.

The provisions of the law of Congress of this year made a change in the plan of operations necessary.

The sum of three hundred thousand dollars was appropriated to finish the repairs of the road from Cumberland to Wheeling, a distance of 132 miles, of which 54 had not been commenced.

To conform with the provisions of the law, it became necessary to confine the expenditure of this sum to the most indispensable parts of the system; adopt a less expensive and less permanent repair; abandon the plan of finishing the mountain divisions with limestone throughout, and to a width of 20 feet; putting the metal on the more expensive parts of these divisions on a width of from 12 to 15 feet instead of 20; abandon further repairs to the masonry of the parapets of the bridges, depositing the stone that had been prepared for this purpose on the side roads, and leaving the side walls on Wheeling hill in their unfinished state; limiting the stratum of metal to be put on this season to three and a half perches (on the average) per rod, on the whole line of the road, transporting the stone that had previously been collected for an additional thickness of metal to parts that had not been supplied; substituting wooden bridges for stone over Wills's creek and Braddock's run; and

abandoning altogether the construction of any bridge over Dunlap's creek.

To carry into effect this modified system of repair, the whole line of the road was divided into 7 divisions, and subdivided into 121 sections; on each section the work to be executed on the grade, ditches, drains, side slopes, and Macadamized metal, was ascertained. Notice was then publicly given, by handbills and through the newspapers, of what was required to be done on each section, inviting persons to execute the work, and specify the terms on which they would agree to do the same by the 31st December, and keeping it in order to the 15th of February, 1835.

Great competition was elicited in this way. For some sections as many as 36 offers were made by different persons, and for no one section less than 6. The most advantageous offer was accepted for each section, and an agreement entered into with the individual to execute the work by the time specified.

It was the beginning of August before these preparatory arrangements were concluded; by the middle of that month most of the contractors had commenced their operations, and on the date of this memoir the repair on the whole line of the road was in active progress, up to which period, including the work done during the fall of 1833, there had been quarried, hauled to the road, or broken to 4 ounces in weight, 37,743 perches of stone; 13,543 rods of road bed were graded ready to receive the metal; 1,003 rods in length had been covered with 3 inches in thickness of metal; 1,742 rods in length had been covered with 4 inches in thickness of metal; 299 rods in length had been covered with 6 inches in thickness of metal; 315 rods in length had been covered with 9 inches in thickness of metal, and finished; in addition to which, there remained at the quarries 835 perches of stone, 3,239 perches of masonry had been constructed, 117 new culverts had been built.

The grade had been reduced by cutting or filling on 28 different places, and 59,512 cubic yards of earth, and 3,403 of rock, had been excavated.

The amount expended during these 12 months was \$156,506 12, leaving an available sum of \$230,045 69, to complete the work now in the course of construction, and to be applied as exhibited in the "statement" of the year.

The entire quality of the work executed on the whole line of the road is exhibited in the "annual statement."

The resources of the country for the purposes of road making have been more fully developed this year than heretofore: quarries of good limestone have been discovered; the crops of the farmer were above mediocrity; laborers were more numerous than usual, owing to the completion of parts of the Chesapeake and Ohio canal and Baltimore and Ohio railroad; and prices lower.

The country has furnished persons of experience and skill in the art of road making, upon whom, in a great measure, the excellence and perfection of the operation depend. As superintendents for enforcing and exacting the provisions of the several contracts, individuals have been selected, in most instances, from among the best contractors of 1832.

The contracts or agreements entered into within the year are, as before stated, one with an individual for each section throughout the whole line of the road. Where more favorable offers could not be had, a second, and, in one instance, a third section was allotted to the same individual

on its being certain that he owned teams, and could, in all probability, succeed in accomplishing the work. As a general rule, but one section was allotted to any one person, unless for the reason above stated. As to the character and resources of the contractors, care was taken to select the lowest bidder possessing or having control of teams, some knowledge of the business, or owning property, to give security that the laborers would be paid. Some experienced men came from the canal and railroad heretofore alluded to, and succeeded in getting sections to suit their interest.

With the exception of three contracts that have been abandoned, all are progressing at this date, with favorable appearances of accomplishing the work in the desired time. Those contracts which have been abandoned have been given to persons who agree to finish them at a lower rate, and for a less sum than would have been due the original contractor. A want of method, order, and system, appeared more the cause of failure, in the three instances mentioned, than can be ascribed to any other cause.

The plan of administration has been to assign an officer of the army to each division of the road, to aid and assist the engineer in carrying the law of Congress, and contracts made under it, into effect. On the seven divisions, to assist the officers in the daily inspection and examination of the work, eleven superintendents have been employed, as also a clerk to make out and preserve the records, returns, &c., required by the regulations of the department.

The funds for repairing this road have, on my requisition, been deposited in the Union Bank of Maryland, at Baltimore. The payments have been made by checks on this bank, in most instances, to the order of the individual to whom it was due—a mode that conduces to the safety and facility of its disbursement, at the same time giving entire satisfaction to not only the contractor, but the merchants, storekeepers, and others living in the adjacent counties, by whom these checks are sought after in exchange for money to pay the laborers; which checks are also freely paid at the banks in Cumberland, Brownsville, and Wheeling, in specie or notes, as demanded, and at the par value.

With the means now available, the work on the road will in all probability be brought to a close (the bridges on the new location excepted) by the date fixed in the contracts, 31st December, when parts will be covered with a thickness of metal varying from 3 to 9 inches. The entire distance between Brownsville and the Virginia line commenced this year, having but 3 inches of stone; the first, fourth, and seventh divisions varying in thickness from 3 to 6 inches, and the second and third divisions from 6 to 9 inches.

The bridges on the new location, near Cumberland, cannot be completed this season, as the timber for their construction must be procured from the forest, which, to secure of seasoned and good quality, cannot be cut before the end of the fall and during the winter. This part of the road will in all probability be thrown open to the public, by traversing the fords, some time in November.

All of which is respectfully submitted by

RICHARD DELAFIELD,

*Captain of Engineers.*

To Brig. Gen. CHARLES GRATIOT, *Chief Engineer.*



**ANNUAL STATEMENT** of the engineer superintending the repairs of the "Cumberland road east of the Ohio," exhibiting its condition, with the expenditures on account thereof, to the 30th September, 1834.

Amount in the hands of the agent on the 30th September, 1833,	-	-	-	-	-	\$36,603 21
Amount in the Treasury on the 30th September, 1833,	-	-	-	-	-	38,961 58
Amount of appropriation for the year 1834,	-	-	-	-	-	300,000 00
Amount available for the 4th quarter of 1833, and the year 1834,	-	-	-	-	-	375,564 79
Amount in the hands of the agent on the 30th September, 1834,	-	-	-	-	-	45 69
Amount in the Treasury on the 30th September, 1834,	-	-	-	-	-	230,000 00
Amount available for the 4th quarter of 1834,	-	-	-	-	-	230,045 69

Extent.	State of the work on the 30th Sept. 1833.		Extent.	State of the work on the 30th Sept. 1834.		
	Cost.			Cost.		
Perches of limestone delivered on the road side,	21,900	This work was executed on parts of the road between Cumberland and Frostburg, - 11 miles, And from Frostburg to the western boundary of Maryland on this route, - 22 do From this boundary to Laurel hill, - 26 70 chs.	32,127	This work was executed on parts of the road between Cumberland and Frostburg, - 11 miles, and cost Frostburg and Maryland line, - 22 do do Maryland line and Laurel hill, - 26 $\frac{3}{4}$ do do Laurel hill and Brownsville, - 16 do do Brownsville and 92 $\frac{1}{2}$ mile stake, - 18 do do 92 $\frac{3}{4}$ mile stake and Virginia line, - 22 do do Virginia line and Wheeling, - 15 do do	\$64,057 56	
Perches of limestone prepared as metal, 4 oz. in weight,	22,099		49,615		86,340 26	
Rods of road bed graded and ready for the metal,	6,260		19,803		113,433 28	
Rods of road covered with 3 inches of metal and under,	203 $\frac{1}{2}$		1,216		58,938 83	
Do do 4 inches do	4,407		6,149		4,065 81	
Do do 6 inches do	2,389	From the boundary between Virginia and Pennsylvania to Wheeling, - 15 do 90 miles.	2,688	Virginia line and Wheeling, - 15 do do	5,637 23	
Do do 9 inches do	3,844		2,926		41,618 48	
Do finished, -	10,230		11,463			
		And cost, on the 30th Sept. 1833, \$223,559 80.		130 $\frac{3}{4}$ miles.		
				Cost on the 30th September, 1834, -	\$380,065 92	

## ANNUAL STATEMENT—Continued.

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	Extent.	State of the work on the 30th Sept. 1833.				Extent.	State of the work on the 30th Sept. 1834.			
		Cost.					Cost.			
Perches of limestone at the quarries, -	5,032	-	-	-	-	835	On which day there was a force employed of 2,204 laborers, and 299 teams of 4 and 6 horses each.			
Perches of masonry in culverts, side walls, and bridges, -	5,453	-	-	-	-	8,692				
Number of culverts constructed, -	66	-	-	-	-	183				
Number of places at which the grade was changed by filling, -	21	-	-	-	-	44				
Number of places at which the grade was changed by cutting, -	22	-	-	-	-	27				
Number of yards of earth excavation, -	90,419	-	-	-	-	149,951				
Number of yards of rock excavation, -	23,467	-	-	-	-	26,870				

[ Doc. No. 15. ]

## ANNUAL STATEMENT—Continued.

*Application of the available funds.*

To carry into effect engagements entered into, and remaining to be executed, on the road between Cumberland and Frostburg,	-	\$38,934 64
Frostburg and Maryland line,	-	13,316 09
Maryland line and Laurel hill,	-	25,650 00
Laurel hill and Brownsville,	-	12,075 94
Brownsville and 92½ mile stake,	-	27,451 40
92½ mile stake and Virginia line,	-	45,842 51
Virginia line and Wheeling,	-	21,710 61
To liquidate debts due for work executed prior to the 30th September, 1834, and remaining unpaid on that day,	-	28,517 02
For superstructure of three bridges over Wills's creek and Braddock's run, 270 running feet, at \$30 per foot,	-	8,100 00
For additional metal to fill ruts and preserve the road, to 15th February, under contract, contingencies on whole route, &c.	-	8,297 48
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		\$230,045 69

RICHARD DELAFIELD, *Capt. of Engineers.*To Brig. Gen. CHARLES GRATIOT, *Chief Engineer.*

ANNUAL STATEMENT—Continued

Application of the available funds.

To carry into effect engagements entered into and remaining to be executed, on the road between Cranford and Trestling.

\$26,334 64	Frederick and Maryland line
17,312 00	Virginia line and Laurel Hill
33,500 00	Laurel Hill and Haverhill
12,075 94	Haverhill and 802 mile stake
57,401 40	802 mile stake and Virginia line
48,842 31	Virginia line and Washington
21,710 61	To liquidate debts due for work executed prior to the 30th September, 1894, and remaining unpaid on that day.
28,917 03	For superstructure of three bridges over White's creek and Haddock's
2,100 00	For superstructure of three bridges over White's creek and Haddock's
2,207 40	For additional gravel to fill cuts and preserve the road to 15th Feb- ruary, under contract, contingencies on whole route, &c.
\$230,010 64	

RICHARD DELAFIELD, Capt. of Engineers.

To Brig Gen. CHARLES GRANT, Chief Engineer.